



FUR SEALS IN CALIFORNIA

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TO MANY people, the very name "seal" suggests the frozen, windswept wastes of polar seas. Rightly so: the greatest concentrations of pinnipeds live in the cold, rich waters of the high latitudes, both north and south. The northern fur seal, *Callorhinus ursinus*, is usually thought of as a typical example. As Dr. George Lindsay describes in this issue of *Pacific Discoverey*, it has always been thought to land only on the Pribilofs and a few other islands in the Bering and Okhotsk Seas.

Thus, we were astonished to discover, on July 20, 1968, a full-fledged colony of *Callorhinus* on San Miguel Island off the Santa Barbara coast. Four of the females in the group bore tags showing they had been born on the Pribilofs, and one sported a Russian tag, showing she had begun life as a pup on the distant Commander Islands near Kamchatka!

To make the story more meaningful, it is worth reviewing briefly the earlier records of fur

seals in California. Two kinds of fur seals have been found in California waters, the northern *Callorhinus* and the Guadalupe fur seal, *Arctocephalus townsendi*. There are old records showing that hundreds of thousands of fur seals were killed in California prior to about 1835, but scientists have no good evidence showing whether these were *Callorhinus*, *Arctocephalus*, or a mixture of the two. No museum specimens were kept from the thousands that were slaughtered for the fur markets of Europe and the Far East.

Dr. Carl L. Hubbs, distinguished biologist at Scripps Institution of Oceanography, suggested long ago that the fur seal of the Farallon Islands was *Callorhinus*, basing this theory on his voluminous knowledge of the distribution of other marine life of the Pacific coast. His theory was not widely accepted: it seemed more likely to many biologists that the little-known Guadalupe fur seal, of which only a few hundred now survive, was the species that figured so significantly in the early history of

The group of *Callorhinus* on San Miguel Island on July 21, 1968. At left, adult females with pups; center, the territorial bull; to the right, young in natal pelage. In the background is a group of *Zalophus*.

California. For one thing, *Callorhinus* has never been known to land on the Aleutian Islands or elsewhere in the north (except for rare stragglers), and that would seem to be prime territory, being much like the Pribilofs. True, they migrate southward as far as the latitude of San Diego to feed during winter months, but they always keep so well offshore that only a few fishermen are ever aware of their presence. Occasionally, one or several have been seen in herds of California sea lions, but generally these have been sick or injured individuals. The alternative theory then ran: if these northern seals never land anywhere but on the Pribilofs, certainly they could not have been the early seals of California. The extensive and faultless migration must have been "programmed" into their behavioral repertoire long in their evolutionary past.

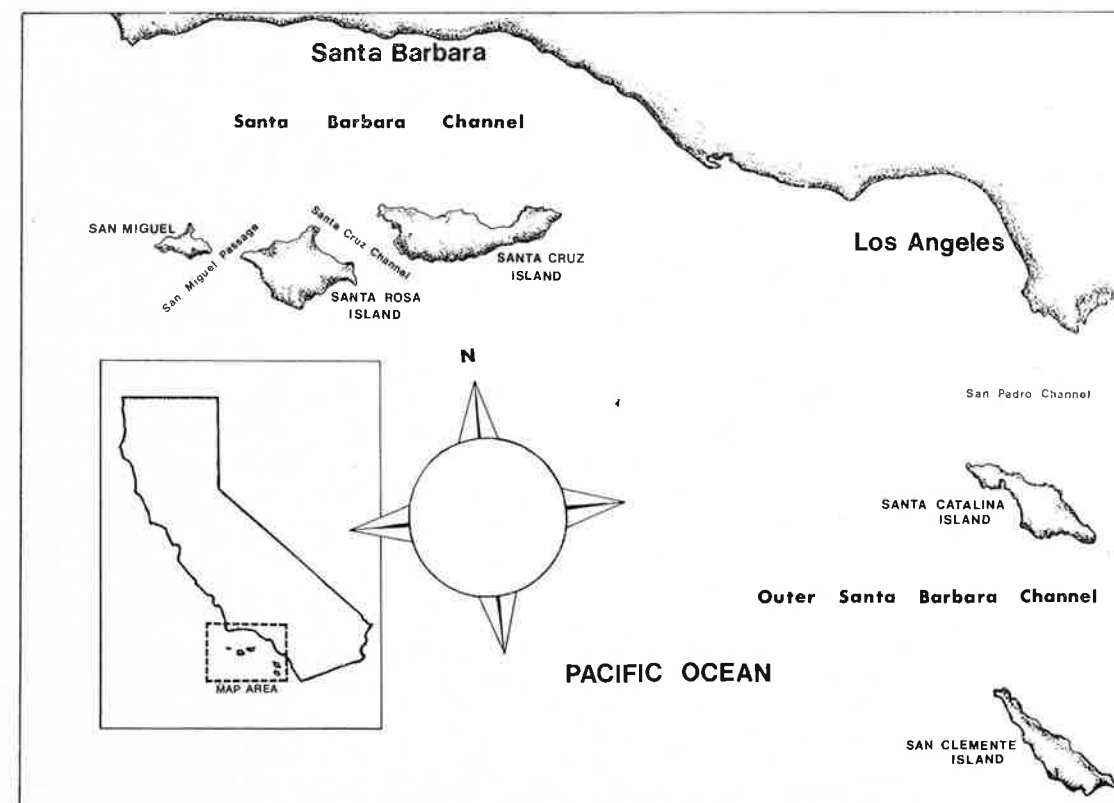
Arctocephalus, the Guadalupe fur seal, was thought to be extinct until 1949, when one individual male was seen on San Nicolas Island by Dr. G. A. Bartholomew. In 1954, Dr. Hubbs located the colony on Guadalupe Island off Baja California (see "Back from Oblivion," *Pacific Discoverey*, Vol. 9, No. 6, Nov.-Dec., 1956, pages 14-21). The population seems to have slowly increased since that time, and during our observations of sea lions on San Miguel, we spotted a few *Arctocephalus* during 1967. At this time we clearly sided with the majority who thought Hubbs was wrong: when and if fur seals ever bred in Califor-

nia, they must have been *Arctocephalus*, not *Callorhinus*.

One other record is worth noting: Richard Headley, owner of "Sea Lions International," Santa Barbara, is a keen observer of the animals he captures to supply exhibits around the world. Unknown to us before our discovery, he had seen as many as 50 fur seals around San Miguel during summer months for at least three years. Unwittingly, he too disagreed with the Hubbs theory and assumed that the animals he was sighting were Guadalupe fur seals.

On the fateful day in July, the two of us, along with Blair Irvine of the Marine Bioscience Facility, Point Mugu, were the first to land at San Miguel to begin our summer census of sea lions. We tumbled through the surf in our rubber boat, and the first man out nearly stumbled over a *Callorhinus* bull. Looking a little further inland we simply could not believe our eyes: there were more than 40 females with newborn pups. The distinctive shape of their heads (*Callorhinus* derives from the Greek words for "beautiful nose") identified them without doubt. To alleviate our mistrust of our own senses, we soon spotted a tagged female. Some ten percent of northern fur seals are tagged, under a joint research treaty between Japan, the USSR, Canada, and the United States. It was certain: this was the first extant colony south of the Bering Sea.

Out on the *Cougar*, the National Park Service



Map showing relation of San Miguel to the other islands of the Santa Barbara Channel.



The aggregation of *Callorhinus* at Adams Cove, San Miguel Island, 11:00 a.m., July 21, 1968. The fur seals are the dark animals in the group in the middle foreground; a few *Zalophus* (California sea lion) males are in the immediate foreground. In the background can be seen reproductive groups of *Zalophus*, and a few scattered *Mirounga* (elephant seals).

vessel that had brought us to San Miguel, were Robert L. DeLong and Charles A. Repenning, respectively a biologist affiliated with the Smithsonian Institution and a paleontologist specializing in the evolution of pinnipeds. One of us quickly paddled back to the *Cougar* with the shouted message, "There's a new seal breeding in there, and you'll never guess what species . . ." "Rep" Repenning rapidly recited a list of possible species, becoming more flabbergasted as he failed to name

the right one, finally proposing the sea lion of Antarctic waters, *Otaria*. Bob DeLong, a long-time student of Pribilof fur seals, finally perceived why we were so excited, and looking more shocked than elated, leapt from the *Cougar* and paddled through the surf with us to see for himself. One of our first thoughts was that the much-discussed Hubbs theory was now almost instantly proven correct: there were indeed fur seals in California!

We stayed with the colony for two days, care-

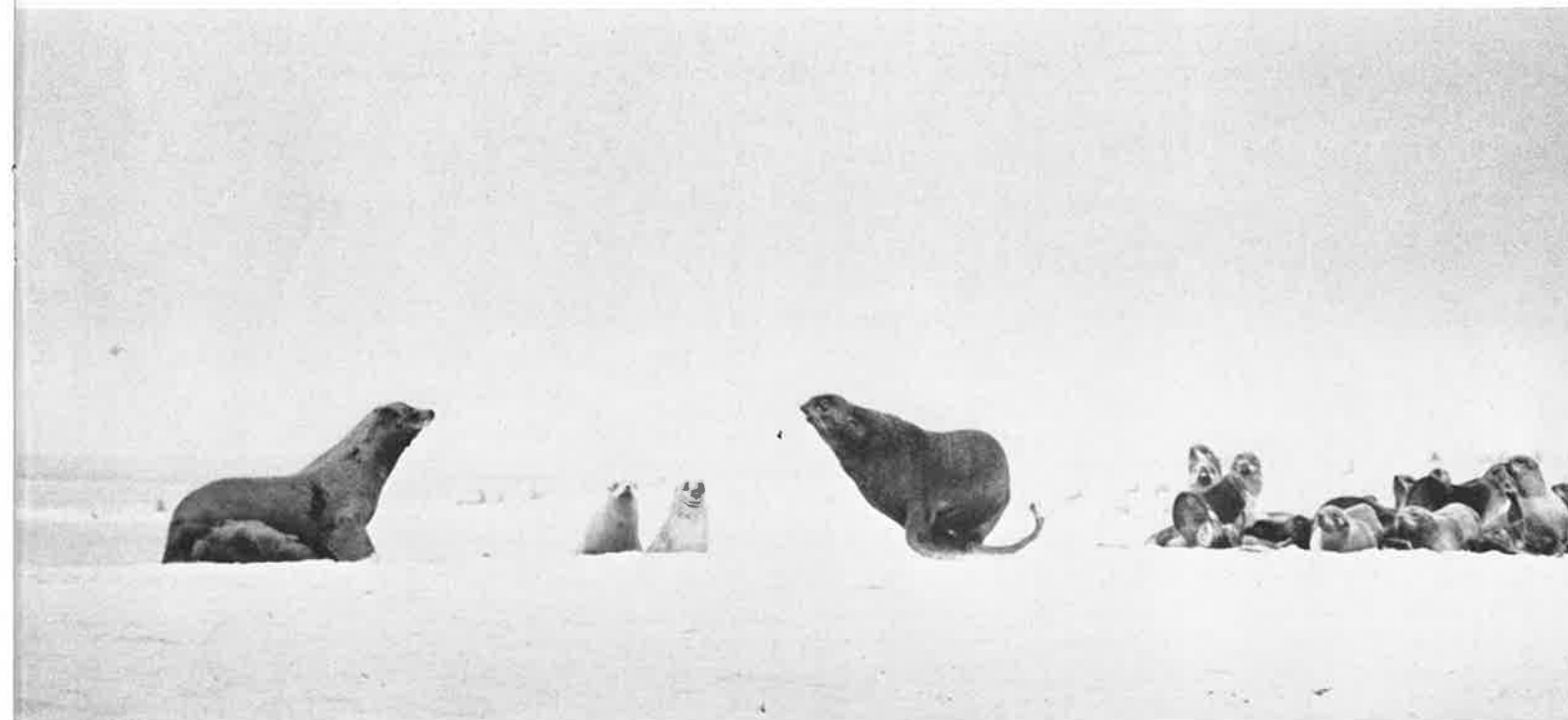
fully observing it with binoculars from a nearby bluff. We noted that the animals seemed particularly attached to one site, and that they diligently kept sea lions away. We spent much of the cold, foggy night shivering and discussing how our find could be made known to the scientific world without arousing the kind of publicity that would damage the new colony by attracting curiosity seekers to the unprotected spot.

A couple of days later we had confirmation from the U.S. Fish and Wildlife Service that the colony would be well protected, and later assurance arrived that the U.S. Coast Guard would assist, if needed, in defense of the colony, as provided by the international treaty governing killing of fur seals! All of this was helpful, even though San Miguel is off limits to the public anyway, being within a Naval missile test range. Our worries about publicity were deftly alleviated by assistance from conservation-minded reporters, Lou Cannon, of the *San Jose Mercury* and David Perlman of the *San Francisco Chronicle*, who made it quite clear in their separate articles on the discovery how fragile and important the new colony was.

We do not know why fur seals have suddenly colonized San Miguel. Looking through bones on the surface of midden heaps of island Indians, "Rep" found ancient remains of both *Arctocephalus* and *Callorhinus*, but we cannot believe that

both bred there at the same time. We revisited the colony during the fall with several authorities on pinnipeds, including Karl W. Kenyon, Ford Wilke and Ancel M. Johnson, and found that the "colonists" behave much like regular Pribilof residents—they leave abruptly in November, previously thought to be an adaptation to avoidance of the harsh Bering Sea winters! In December, Donald Ramsey and Thomas Babb, biology students from the University of California studying elephant seals on San Miguel, found no fur seals, just as on the Pribilofs. Our best theory to explain the new colony is that some of the females that regularly winter at sea off California may have come ashore, by some physiological accident, to bear their young among the sea lions. A wandering male found them and the new colony took shape. We hope to be able to gather more information by close observation of the animals in future summers.

Mr. Donald M. Robinson, Superintendent of the Channel Islands National Monument (the agency that protects the resources of San Miguel) has emphasized that visits to the area near the colony will be carefully regulated so that scientists themselves will not disturb the animals they are anxious to study. We hope that this new addition to the resident fauna of California will thrive and, unlike its 19th Century ancestors, be able to co-exist with its destructive neighbor, man. ❀



Reacting to the approach of a female sea lion, the adult male fur seal rushes from the female fur seals and wards off the sea lion.